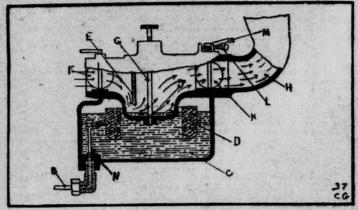
Number 37.

THE FORD CARBURETER.

There is one carbureter; namely, the one used on the Ford cars, which operates on a different principle from most other carbureters and because of the great number of these cars in use, demands a special explana-

The Ford carbureter is of the type known as the Puddle or Surface carbureter. At the higher speeds, however, it is really a spray carbureter. We learned that the gasolene will evaporate; that is, change from a liquid to a gas at a temperature of about 70 degrees, when under atmospheric pressure, but at a much lower temperature when the pressure is less than atmosphere, or a vacuum. Thus, if we had a puddle of gasolene in a vessel and were to create a vacuum over the puddle, the gasolene would vaporize. If a current of air were to pass over this puddle at a fair rate of speed the tendency to vaporize would be increased, partly because of the agitation of the liquid and partly because of the friction at the surface of the liquid



the air will carry with it some fine particles of the liquid, and also because

the air will carry with it some fine particles of the liquid, and also because this friction will make the top of the liquid warm.

It is on the above principles that the Ford carbureter is designed.

In the illustration "B" is the pipe from the supply tank, "C" the float chamber, with its cork float and its float valve, "N." and "D" is the puddle chamber. You will note that the level of the liquid in the float chamber is slightly—15 of an lightly—16 of an lightly—16 of an lightly—16 of the puddle chamber, thus there will be a thin puddle of gasolene in the chamber.

chamber, thus there will be a thin puddle of gasolene in the chamber.

Note that because of the curve in the corners of this chamber the surface or area of the top of the puddle will be greater when the depth or thickness of the puddle is increased, and vice versa.

Now as the engine is cranked, because of the suction stroke a vacuum will form in the manifold "H" and so in the puddle chamber, with the result that the gasolene will vaporize and at the same time a current of air will that the gasolene will vaporize and at the same time a current of air will be considered to the considered will be considered.

"F" and so carry this gas to the cylinder, mixing with it on the How is the proportion of gasolene to air in the mixture controlled or

regulated? As the gasolene vaporizes the puddle will disappear or become thinner, and gasolene must enter to take the place of that used. Now, if we were to control the entrance of this fresh gasolene so as to keep the puddle at a certain thickness, we would also keep the area of the top of the puddle, or the surface from which the gas can vaporize, to a certain amount, and we

would thus control the per cent. of gas in the mixture.

The entrance of the fresh gasolene is controlled by the needle valve "G."
Obviously, as this needle is screwed down the mixture will be leaner or weaker, and when screwed up richer.

As a matter of fact the amount of gasolene which will vaporize will be exactly the amount which will enter through the hole "J," or needle valve. Because of the greater vacuum at the higher speeds more gas will enter through this opening, just at it does through the spray nozzle of the carbureter explained previously.

The above is the action at the lower speeds, but at the higher speeds all of the puddle will be swept away, so that the needle valve "I" will really become a spray nozzle, its action being much the same as that of the nozzle of the spray type of carbureter.

in the illustration is the butterfly or throttle valve, operated by the

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Tuesday, November 29, was one of the and Ulster counties, when impressive world's air record in the Pulitzer Cup

ing of the Rondout Creek Bridge.

HINTS FOR DRIVING IN COLD WEATHER

time when winter weight underwear makes its appeal motor cars, too, call for heavier ciothing. Many devices for keeping the heat in and the cold out are available to the automobilist. Radiator and bonnet covers and shutter devices for the cooling systems are to be had in various states of claborateness. They can be had in cloth, leather and metal, according to the demand of the temperature and the pocketbook of the car owner.

DUE TO SPARK PLUG

Important Link in Main High Development of This Accessory Made Possible Many Sterling Performances.

navy racer to victory and made a new third great victory of 1921 for American endush to hold the pressure and the fire an engineering skill. Jimmy Murphy's triumph in the French Grand Prix at the waters of Rondout Creek for nearly a century, and which is known to thousands of automobile tourists. The ferry operates with a small power engine, runs on a chain which prevents its losing its way in the five minutes voyage from shore to shore, has no pilot or steering wheel and carries a crew of two men, in addition to the captain, whose chief function is the collection of fares.

Construction of the new bridge was begun in 1919, the cornerstone being laid by former Gov. Alfred E. Smith on September 13 that year.

Motorists will now be able to travel from Jersey City to Buffalo, passing

by former Gov. Alfred E. Smith on September 13 that year.

Motorists will now be able to travel from Jersey City to Buffalo, passing along the west shore of the Hudson filver, without being obliged to use a ferry anywhere along the route, and the last gap on the way across the Empire State has been bridged.

For over half a century it has been the dream of the older residents of Kingston and Ulster counties that they would finally see a bridge thrown across the Rondout Creek connecting Kingston and the town of Esopus, and Tuesday saw the realization of that dream.

Dinner was served at 12 o'clock at the armory. This was followed by speaking. County Judge Joseph M. Fowler, also president of the Chamber of Commerce, presiding. He introduced Governor Miller, former Commissioner Sisson, former Commissioner Greene, Hon. Alton B. Parker, fo

field.

"Take engines as another proof that the United States leads. It wasn't many years ago that an engine which developed one horse power for every six pounds of its own weight was considered a remarkably light, efficient power plant. The Curtiss K-1 in Acosta's 'ship gives one brake horse power for every 1.65 pounds. This engine, rated at 400 h. p., weighs but 675 pounds and has a brake h. p. of 419.

"It has a bore of 4½ inches, a stroke of 6. But the average car owner, who is thinking in terms of 'miles per gallon' probably will be shocked to learn that the Navy Racer consumes 34.8 gallons per hour with a full throttle. Off consumption is .42 gallon per hour."

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The Automobile Owners' Obligation Be Fair to the Manufacturer and Dealer by Being Fair to Your Car

Suppose you were trying to break a board with a hammer. You could strike it hundreds of light blows without breaking it, but almost to the rim, and that clasticity we then push the car forward again. Some then push the car forward again. Some then push the car forward again.

CLOSED CARS IN DEMAND
AT PRESENT TIME

People buy closed cars in much the same way that they do overcoats, according to W. J. Coghlan, president of the Moon Motor Car Company of New York.

During the mild fall weather which preceded Thanksgiving Day nobody took

any interest in closed cars and most salesrooms along Broadway were displaying in their front windows their most attractive open models. With the inclement weather of the last ten days the open cars have clsappeared and purchasers have eyes only for the closed models. Mr. Coghlan reports a steadily increasing demand for Moon closed cars and most salesrooms along Broadway were displaying in their front windows their most attractive open models. With the models. Mr. Coghlan reports a steadily increasing demand for Moon closed cars and most salesrooms along Broadway were displaying in their front windows their most attractive open models. With the inclement weather of the last ten days the open cars have clasppeared and purchasers have eyes only for the closed most attractive open models. With the inclement weather of the last ten days the open cars have claspeared and purchasers have eyes only for the closed models. Mr. Coghlan reports a steadily increasing demand for Moon closed cars and most salesrooms along Broadway were displaying in their front windows their most attractive open models. With the open cars have eyes only for the closed most attractive open models. With the inclement weather of the last ten days the open cars have claspeared and purchasers have eyes only for the closed models. Mr. Coghlan reports a steadily increasing demand for Moon closed cars.

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ELABORATE PLANS FOR NATIONAL SHOW

Ninety-four Different Makes of Automobiles to Be

Preparations for the national automobile shows in New York and Chicago. Which are rapidly nearing completion, assure those who have followed them that the displays will be the biggest and most comprehensive the country has ever known. The New York event, the first half of the show, will be held in Grand Central Palace, January 7 t · 14, and the Chicago event, the second half, in the Collseum and Armory, Jan. 28 to Feb. 4. There will be minety-four car manufacturers exhibiting on the four floors of the Palace in January, as against eighty-eight last year. This record number of exhibitors means that there will be nearly 400 different models shown to the New York motoring world; in fact, to those interested from all parts of the country for New York cit, will

York. These are the Souronville Handley-Knight, Rickenbacker, Wills Sainte Claire, Kelsey, Itala and Vauxhal

Sainte Claire, Kelsey, Itala and Vauxhall. The last two named are the foreign makes that will be on display.

This year's New York exhibition will also show to the public the biggest display of accessories that has ever been located under one roof, in spite of the fact that it was impossible to find space for many who applied for booths. In New York the accessory booths number 233, and they will show a most varied line of devices and appliances that so to help the motorist. Every year something new can be depended upon from this phase of the exhibit.

Ambassador, Anderson, Apperson, Au-

Ambassador, Anderson, Apperson, Auburn, Buick, Cadillac, Case, Chalmers, Chandler, Chevrolet, Cleveland Columbia, Commonwealth, Crow-Elkhart Cole, Davis, Detroit, Electric, Dixie Flyer Cole, Davis, Detroit, Electric, Ditte Flys-Dodge Brothlers, Dorris, Dort, Du Por Durant, Earl, Elcar, Elgin, Esse Franklin, Gardner, Grant, Handle Knight, Hanson, Hatfield, Haynes, H. S., Holmes, Hudson, Hupmobile, Ital Jackson, Jordan, Kelsey, King, Kiss Kar, Kline Kar, Lafayette, Leach-Elli well Lexington, Liberty, Lincoln Loc well Lexington, Liberty, Lincoln, Lowell Lexington Liberty, Lincoln Liberty, mobile, McFarlan, Malbohm, Marmon Maxwell, Mercer, Milburn, Mitchel Monroe, Moon, Nash, National, Nonn Oakland, Oldsmobile, Overland, Parter, Paige, Paterson, Peerless, Pierce Arrow, Pilot, Premier, Rauch-Lang, R. V. Knight, Reo, Rickenbacker, Roame Savon, Savara, Standard, Stantes Saxon, Reo, Rickenbacker, Stearns-Knight, Stephens-Moline Company, Stevens-Duryea Stutz, Templa

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For His or Her or Their Christmas A Closed Reo

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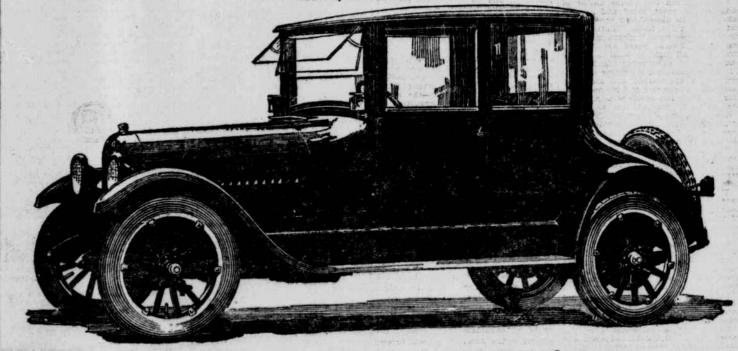


A Gift for All the Family For All the Year!

ET a Studebaker SPECIAL-SIX COUPE, as the ideal Christmas gift for all the family, solve your perplexing shopping problems.

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